

# Psychometric Research *GSR Meter*

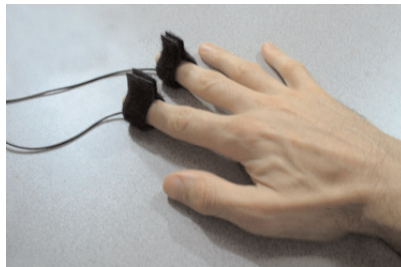
## The theory behind it

The *GSR Meter* measures a client's Galvanic Skin Response (also known as Electrodermal Response - EDR). This is simply the electrical conductivity of the skin. In order to measure this, a very small electrical current (unnoticeable to the client) is passed through the skin from one finger electrode to the other.

The electrical conductivity of the skin is affected by changes in the salt and water in the sweat gland ducts. These changes occur almost instantaneously in response to certain emotional reactions, the 'fight or flight response' (electrical conductivity increases), and when relaxed (electrical conductivity decreases). Thus the *GSR Meter* is able to measure and display a client's general state of relaxation and immediate emotional reactions. The depth of relaxation or intensity of emotional response is indicated by the change in reading on the digital display.

## Operating instructions

**The sensor lead:** The velcro finger straps should be fitted securely to the client's first and second fingers. The straps should be positioned in the middle of the end section of the fingers, orientated so the copper electrodes are in good contact with the fingerprints (not the fingernails). If the finger straps are not fitted well, for example if they are too loose, or too near the tips of the fingers so the electrodes don't make good contact, then the reading will tend to be too low.



It doesn't matter which hand is used, but it is important to continue using the same hand from session to session in order to get comparable readings.

**The front panel:** Connect the sensor lead to the socket in the bottom right corner. The rocker switch on the left turns the meter on, and the push button on the right toggles between 2 and 3 digit mode. The first 2 digits of the reading are the same in both modes - 3 digit mode simply adds more accuracy. More accuracy can be useful in seeing more quickly which direction the reading is moving in (e.g. during analysis), whereas the 2 digit mode is less distracting to read (e.g. during hypnosis).

Since the readings will vary from person to person regardless of their mental state (due to variations in skin type, etc.), it is a good idea to record a reading of a client before any therapy is carried out. This will give you a reference to work from. It is best to take this reading after your client has been sitting relaxed for a while. Perhaps attach the electrodes at the beginning of the initial consultation but record the reading near the end of the consultation. Typical readings at this stage tend to be between 50 and 75.

Note that use of certain prescribed drugs or even herbal medication (anti-depressants, tranquillisers, etc.) may result in an unusually low reading. This low reading does not matter as it is still a valid reference point.

## Operating instructions (continued)

It is also worth noting that if a client is particularly hot or cold this will affect the reading, making it higher or lower respectively. This should not normally be a problem since the environmental conditions of your treatment room are mostly likely fairly stable. In any case it is the changes in reading during a session that are of most interest.

**Hypnosis:** When you have your client comfortably settled, attach the *GSR Meter* electrodes to their fingers. Take a note of the display reading as you begin your induction. Normally as your client enters hypnosis the reading will fall and continue to fall as they become more and more relaxed. Occasionally a client's reading will rise even through they have entered trance - this tends to be indicative of subconscious anxiety. It is recommended to continue deepening suggestions until the reading stops falling, or at least slows right down.

**Analysis:** As your client begins to talk during analysis (e.g. free association, regression to cause, etc.) the reading will tend to rise somewhat as their trance lightens. This is normal, but when they enter a 'no go' area (anxious thoughts, etc.) the reading will rise more significantly, often very quickly, even though they may appear visibly relaxed. This is the time when you may decide to gently probe. Reduced reactions in particular areas from session to session will give you good feedback of your client's improvements.

**Suggestion:** With the *GSR Meter* you can monitor your client's emotional reactions to your suggestions during hypnosis and thereby pace your suggestions. You can also get a good indication of progress made by observing their response to a fear or phobia before and after hypnosis.

Ultimately as you use the *GSR Meter* you will gain specific experience relevant to your particular methods of therapy and most likely you will find it an invaluable tool.

## Care for the sensor lead

When storing the sensor lead care should be taken not to twist the wire as this stresses the copper conductors and can eventually lead to breakage. Twisting can occur when the lead is repeatedly wound around a hand or other spool and then unwound. It is far better to fold the lead so there is no chance that it can become twisted.

## The battery

The *GSR Meter* has a very low power consumption and typically runs for about 180 hours from a single 9V alkaline battery.

When the battery eventually runs down, the display may become fainter, may flicker or may simply not display anything. Another sign that the battery is nearing the end of its life is if the display does not quite go down to 00.0 when disconnected (e.g it reads something like 00.2). It is best to replace the battery at the first sign of it running out because the readings will become slightly less accurate after a time.

To get access to change the battery: first remove the inner plastic case from the outer rubber boot by pushing your thumb through the open square at the back, then slide open the battery compartment at the back of the case.